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ABSTRACT

A study was conducted to determine the precise content of elementary school spelling instruction. Spelling textbooks for grades one through six from seven major commercial publishers were selected on the basis of their use in elementary classrooms and were subjected to a critical, computer-assisted analysis in order to identify and classify the specific spelling skills actually taught through textbook instruction. The most striking fact to emerge from the investigation was that there is very little agreement among the series as to the appropriate content of spelling books. The results provide a better understanding of current spelling instruction as well as data for the construction of instruction-referenced assessment instruments such as the Southwest Regional Laboratory's Proficiency Verification Systems (PVS). PVS is an assessment inventory that matches assessment to actual instruction, and this investigation was directly related to the development of spelling inventories similar to the PVS inventories that have already been developed and implemented in mathematics and reading. (Appendixes identify the seven spelling series studied, the distribution of skills in the seven series, and suggested levels for assessing spelling content.) (AEA)

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AN ANALYSIS OF THE CONTENT OF SEVEN SPELLING SERIES

Larry Gentry

ABSTRACT

A detailed analysis of seven commercial spelling series was undertaken to identify the specific spelling skills that are commonly taught in elementary school classrooms. This analysis establishes parameters for the design of assessment items for Proficiency Verification Systems (PVS) inventories for spelling.

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AN ANALYSIS OF THE CONTENT OF SEVEN SPELLING SERIES

Larry Gentry

This investigation represents an attempt to determine the precise content of elementary school spelling instruction. Spelling textbooks for grades one through six from seven major commercial publishers were subjected to a critical, computer-assisted analysis in order to identify and classify the specific spelling skills[1] actually taught through textbook instruction. The seven series chosen for analysis were selected on the basis of their widespread use in elementary classrooms. The results of this investigation provide a better understanding of current spelling instruction as well as base-line data for the construction of instruction-referenced assessment instruments. In respect to the latter application, the investigation establishes parameters for the design of assessment items for SWRL's Proficiency Verification Systems (PVS) inventories for spelling.

Proficiency Verification Systems

Proficiency Verification Systems (PVS) is a relatively new assessment concept developed by researchers at SWRL (Buchanan, 1975). It seeks to avoid the limitations of both norm-referenced and criterion-referenced instruments by matching assessment to actual instruction. PVS inventories have already been developed and implemented in mathematics and reading (Buchanan and Milazzo, 1977; Fiege-Kollmann, 1977).

The present investigation is directly related to the development of similar inventories in spelling. Like their counterparts in mathematics and reading, the spelling inventories will provide for

[1] As used in this paper, "spelling skills" refers to sound-to-spelling correspondences, spelling rules and principles, and other spelling-related instruction.

instruction-referenced assessment at the beginning, middle, and end of the school year. Present efforts toward the design and development of the spelling inventories derive from earlier studies by Cronnell (1978) and Cronnell and Humes (1979).

Skills Indices

The spelling skills indices developed by Cronnell (1978) provided the framework for a detailed analysis of each text. The indices are designed to accommodate a page-by-page and item-by-item analysis and coding of (1) specific skill content, (2) elicited learning behavior, and (3) the stimulus evoking the behavior. One portion of the indices, the Content Index, was of particular importance to the study. The Content Index, derived from earlier work by Cronnell (1971) and Russell (1975), allowed researchers to focus on the specific content of each spelling item regardless of the sometimes conflicting or inconsistent designations provided in the various series. This assured a high degree of uniformity in coding ambiguous and otherwise deceptive items. The Content Index identifies twenty-nine major categories of spelling content:

Consonants
- Invariable single consonants
- Variable consonants
- Consonant digraphs
- Miscellaneous doubled consonants
- Miscellaneous silent consonants

Vowels
- Short vowels
- Long vowels
- Vowel-r

Affixation
- Inflectional suffixes
- Derivational suffixes and endings
- Endings
- Prefixes and beginnings
- Affixation processes

Structures
- Dictionary skills
- Homophones
- Compounds
- Irregular words
- Contractions
- Abbreviations
- Syllabication
- Special sets of words
- Segments
- Whole words

Non-spelling

Miscellaneous

Certain categories were included in the index not because of their intrinsic value as spelling skills, but because of their widespread occurrence in commercial texts. The non-spelling category, for example, includes the handwriting, grammar, and punctuation exercises that are found in many spelling textbooks.

Within each major category are up to 50 subcategories that define spelling content more precisely. The "long-vowel" category, for example, includes 37 possible long-vowel spellings, five codes to delineate special applications of the spellings, and an "Other" code to allow for unspecified low frequency spellings.

Coding and Analysis

Seven commercial spelling series were selected for coding and analysis (see Appendix A). Each text designated for use in grades one through six was examined for instructional content.

Each instructional exercise was coded for a major content category and, as was applicable in most exercises, one or more subcategories that specified the item content. When the "Other" code was used, prose explanation was added.

As provided for by the indices, the specific task to be performed by the student was also coded for each item. While task analysis provided much useful data for constructing assessment items, it is only indirectly related to skill content and falls beyond the scope of the present discussion.

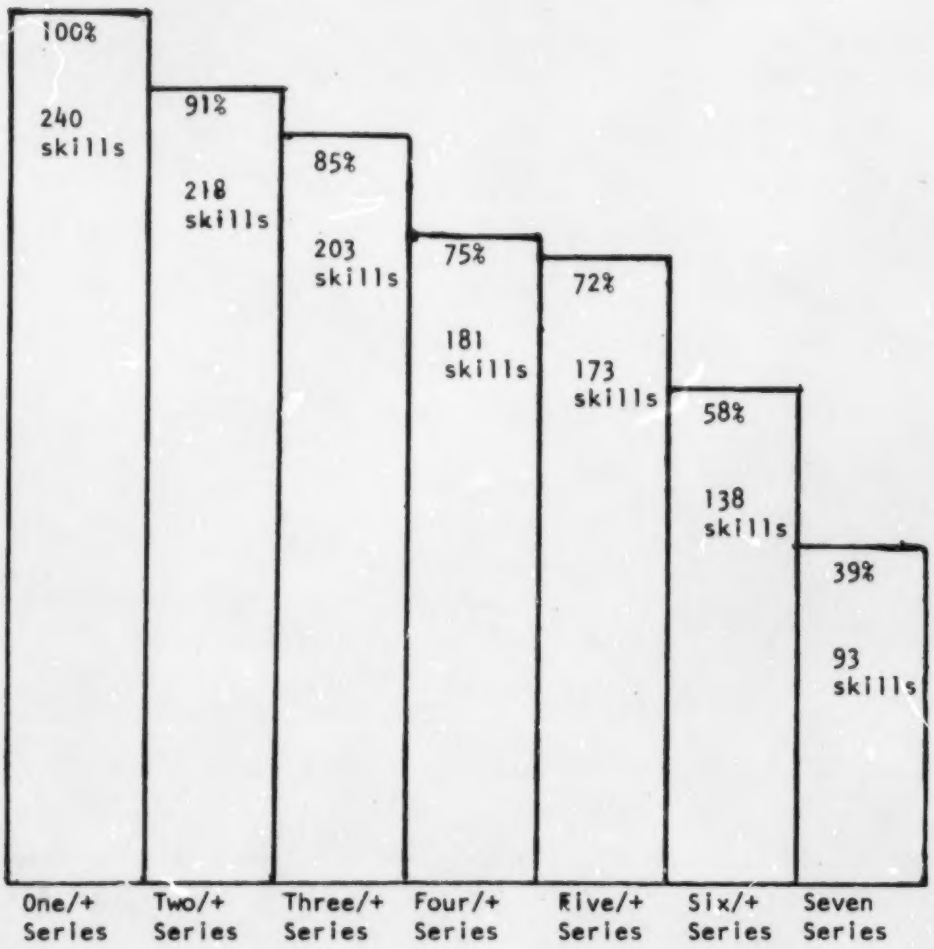
When coding was completed, the data were keypunched for computer processing. The codes were sorted first by grade level and then by major content area. Within the major content areas, each instructional activity for a specific spelling skill was listed under the appropriate subcategory.

The next phase of the analysis involved tabulating the number of times that each spelling skill was taught or practiced in each book. The resulting data provided for the examination of several factors: (1) the continuum of skills within a series; (2) the relative importance accorded a skill; (3) the grade level(s) at which a skill is introduced, emphasized, or practiced, and (4) the presence or absence of general consensus regarding grade level treatment and emphasis of particular skills.

Results

The most striking fact to emerge from the investigation is that there is very little agreement among the series as to the appropriate content of spelling books (see Appendix B). Collectively, the seven series present 240 specific skills that fall within the Content Index (excluding non-spelling items and items coded as "Other"). However, only 93 of these are taught in all seven series (see Figure 1). This

Figure 1: Cumulative
Occurrence of Skills



general lack of consensus is further emphasized by the fact that, with the exception of 24 common first grade spellings (i.e., single consonants and short vowels), only three skills occur in all series at the same grade level.

Beyond early first-grade instruction, agreement as to curriculum content and sequencing is reduced to very general categories. For example, all series introduce some long-vowel and consonant-digraph spellings in the first or second grades, but the specific items selected for instruction are quite varied. Series B, for example, teaches u. . .e (e.g., rule) in first grade while Series A doesn't teach it until fifth grade. Conversely, Series A includes /ō/-ow (e.g., low) in its first grade curriculum while Series B doesn't treat this spelling until third grade. A few other examples may suffice to underscore the extent of this variability. The qu spelling is first taught at four different levels; as early as the first grade and as late as the fifth grade. While most series introduce the tch spelling in the third grade, Series D teaches it in second grade while Series C postpones instruction until sixth grade. The schwa (/ə/) spellings are introduced by various series at the third, fourth, fifth, and sixth grade levels.

In addition to widespread differences in the grade placement of specific spellings, there is minimal consensus with regard to overall content. As mentioned previously, only 93 of the 240 skills are taught in all seven series. Only one series teaches more than 200 (see Figure 2). A certain number of high-frequency spellings occur

Figure 2: Frequency of Spelling Skills

Series	Consonants (56)[a]	Vowels (72)	Affixes (65)	Other (47)	Total (240)
A	52 (.93)[b]	65 (.90)	46 (.71)	34 (.72)	197 (.82)
B	49 (.88)	56 (.78)	29 (.45)	35 (.74)	169 (.70)
C	45 (.80)	46 (.64)	37 (.57)	38 (.81)	166 (.69)
D	51 (.91)	64 (.89)	40 (.62)	32 (.68)	187 (.78)
E	48 (.86)	49 (.68)	27 (.42)	37 (.79)	161 (.67)
F	53 (.95)	63 (.88)	49 (.75)	38 (.81)	203 (.85)
G	54 (.96)	56 (.78)	37 (.57)	37 (.79)	184 (.77)

[a] Numbers following major skill headings represent the total number of skills within that category.

[b] Numbers shown as decimals reflect the percentage of the total possible skills in each category that is taught by a particular series.

in all series, but those that call for some degree of linguistic orientation tend to be ignored by some publishers. For example, collectively the seven series cover eighteen vowel-r spellings, but Series C teaches only two of these. In no area, however, is content more inconsistent than in the teaching of affixes. Of the 65 affixes taught collectively, only eleven are taught in all seven series, and only 30 are taught in five or more. The prefix un- is the only prefix agreed upon by all series. Series not only differ in their selection of specific affix spellings, but also in the emphasis they place on affixes in general. Series F, for example, teaches 49 affixes, while Series E presents only 27.

Applications

Given the inconsistent nature of commercial spelling texts, is it possible to design assessment instruments that can be administered fairly to students who have been exposed to different series? The answer is yes . . . within limits.

It would certainly be unfair to expect sixth graders to have a working knowledge of all 240 of the identified skills, many of which aren't included in their particular spelling series. Conversely, an assessment of only the 93 features common to all seven series would be inadequate, since even the most conservative series teaches 161. The answer lies in attempting to establish some type of consensus; a middle road that avoids extremes.

As previously noted in Figure 1, 181 skills are included in at least four of the series. Thus, instruments based on this figure would assess 75% of the content collectively taught in the seven series. While caution might suggest that five series would represent a more reasonable criterion, Figure 1 again reveals a difference of only three percent between the two. Either criterion yields a representative sample of skills and a sufficient number of items for test construction.

Once the content to be assessed has been selected, the next obvious problem is to determine the proper grade level for assessing each skill. As noted previously, the same spelling is frequently presented at different grade levels in the various series. This problem must be met by examining the distribution pattern for each individual skill. The /ch/ - ch spelling provides an example: four series teach ch in the first grade, two introduce it in the second grade, and another waits until the third grade. While the four represent a simple majority of the series, assessment for this skill should be postponed until the second grade where it is assured that most children have been exposed to it. The fact that only one series waits until the third grade to introduce ch appears to reflect a deviation from common practice.

While "common practice" is the desirable criterion for determining the grade level at which any skill should be assessed, this analysis has demonstrated that common practice in spelling instruction is an elusive concept. A practical solution to this problem is to locate

that point in the grade-level continuum at which a majority of students have been exposed to a particular skill. This latter practice has, in fact, been adopted in determining grade-level content for the PVS spelling inventories. For most skills, a five-series majority is applied; a skill is assessed when at least five of the seven series have introduced it. There are, however, exceptions. For example, five series teach a. . .e (e.g., ate) and i. . .e (e.g., bike) in first grade. The two others introduce it in second grade. All seven series, however, emphasize practice for these spellings in the second grade. Thus, the PVS inventories include them in the second grade assessment. A different type of exception is exemplified by the x spelling. Only four series (a simple majority) teach x in first grade, but no other series joins them until third grade. In this case, a value judgment must be made; is the spelling of words with x too difficult for most first graders or too simple for most third graders? PVS chose to assess it at first grade.

By applying such criteria to each content item, an adequate framework for grade-level assessment can be designed. Appendix C, the basic PVS framework for spelling assessment, reflects an application of the foregoing suggestions. This framework, or any similar model, must be viewed as a preliminary, albeit essential, tool for test-design. The contingencies of product development may require a great deal of cautious juggling to arrive at instruments that achieve content balance, contain an appropriate number of items for students at various grade levels, and meet a variety of editorial limitations. Ideally, the

final product will evaluate all essential skills common to a particular grade level and relegate only the less-critical skills to a later assessment.

The foregoing limitations are of little consequence in terms of the advantages derived from instruction-referenced evaluation. It is only through the design of such instruments that educators will have the capacity to match large-scale assessment with the actual learning experiences of students.

References

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Russell, P. An outline of English spelling (Technical Report 55). Los Alamitos, Calif.: SWRL Educational Research and Development, 1975.

APPENDIX A

Spelling Series Analyzed

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Glim, T. E. & Manchester, F. S. Basic spelling. (Revised edition.) Philadelphia: J. B. Lippincott, 1977.

Kottmeyer, W. & Claus, A. Basic goals in spelling. (Fifth edition.) New York: McGraw-Hill, 1976.

Madden, R. & Carlson, T. Harbrace spelling program. New York: Harcourt Brace Jovanovich, 1974.

Novicky, W. N. Dorocak, S., Faulhaber, M. C. Himes, M., McNernery, K., Petruziello, R., & Wolfert, R. Growth in spelling. River Forest, Illinois: Laidlaw, 1975.

Ort, L. L. & Wallace, E. E. Word book. Chicago: Rand McNally, 1976.

Thomas, O., Thomas, I. D., & Lutkus, A. The world of spelling. Lexington, Massachusetts: D. C. Heath, 1978.

APPENDIX B

DISTRIBUTION OF SKILLS
IN SEVEN SPELLING SERIES*

Skill	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Not Taught
Invariable Consonants							
/b/-b	ABCDEFG						
/d/-d	ABCDEFG						
/g/-g	ABCDEFG						
/h/-h	ABCDEFG						
/p/-p	ABCDEFG						
/t/-t	ABCDEFG						
/w/-w	ABCDEFG						
/ks/-x	BDFG		A		E		C
/y/-y	ABCDEFG						
clusters	A	CEFG					BD
/C/-CC/V V			ADEFG	B	C		
/C/-C/V V				BF	G		ACDE
Variable Consonants							
/f/-f	ABCDEFG						
/f/-ff	A	BDE	CF		G		
/f/-ph				ACE	BDG	F	
/j/-j	ABCDEFG						
/j/-g			D	AEF	CG		B
/j/-ge		B	DEG	AF	C		
/j/-dge			D	ABFG	C		E
/j/-dg					E		ABCDFG
/k/-k	ABCDEFG						
/k/-c	ABCDEFG						
/k/-ck	AG	BDEF	C				
/k/-ch					DFG	AE	BC
/kw/-qu	BG		D	ACF	E		
/l/-l	ABCDEFG						
/l/-ll	ABFG	CDE					
/m/-m	ABCDEFG						
/m/-mb			DFG	BC	AE		
/n/-n	ABCDEFG						
/n/-kn			ADFG	BC	E		
/r/-r	ABCDEFG						
/r/-wr			ADFG	B	C	E	
/s/-s	ABCDEFG						
/s/-ss	AG	BDEF	C				
/s/-c			ACDFG	BE			
/s/-sc					AF	DG	BCE
/s/-st				C	AF	DG	BE
/s/-se			BDF				ACEG
/s/-ce			BCDFG	A			E
/v/-v	ABCEFG						D
/v/-ve						B	ACDEFG
/z/-z	ABDEFG						C
/z/-s		AC	EFG				BD
/z/-se			AD	BCFG			E
/z/-ze			ADG	BF			CE

*Capital letters A-G represent spelling series; column placement indicates grade at which skill is introduced.

Skill	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Not Taught
Consonant Digraphs							
/ch/-ch	ADFG	BE	C				
/ch/-tch		D	ABEFG			C	
/ng/-ng	AFG	DE	B	C			
/ng/-n			BDEG	A			CF
/sh/-sh	ADFG	BE					C
/sh/-ch				D	BG	AC	EF
/th/-th	ADFG	BCE					
/hw/-wh	DG	ABCEF					
doub. cons.		E	ADF	G	C		B
silent cons.		D	EFG		B		AC
Short Vowels							
/a/-a	ABCDEFG						
/e/-e	ABCDEFG						
/e/-ea			C	ABCD	F		E
/i/-i	ABCDEFG						
/i/-y						G	ABCDEF
/o/-o	ABCDEFG						
/ô/-o			A		DF		BCEG
/ô/-a		ADF	BE		CG		
/ô/-au		D	B	AF	EG		C
/ô/-augh		D	E	ACFG			B
/ô/-aw		ADF	BG		E		C
/ô/-ough			ADE	CF	B		G
/u/-u	ABCDEFG						
/u/-o			FG	AC	B		DE
/u/-o...e		ADG	F	C			BE
/u/-ou			D	C	BFG		AE
/ú/-u		D	ABEG	F			C
/ú/-oo	D	ACEG	F				B
schwa			A	G	C	EF	BD
Long Vowels							
/ā/-a			B	C		ADF	EG
/ā/-a...e	ABDEF	CG					
/ā/-ai	AD	BEG	CF				
/ā/-ay	AEF	BCDG					
/ā/-ei				ACF		BE	DG
/ā/-eigh				A	BC	DEG	F
/ā/-ey			B	F	C		ADEG
/ē/-e	BDEF	ACG					
/ē/-e...e			E		AC	DF	BG
/ē/-ea	AD	CEG	BF				
/ē/-ee	ADF	BCEG					
/ē/-i					AF		BCDEG
/ē/-ie		DEG	C	AF	B		
/ī/-i		D	BCE	AF			G
/ī/-i...e	ABDEF	CG					
/ī/-ie		BDFG	ACE				
/ī/-igh		DE	ACG	BF			

Skill	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Not Taught
Long Vowels (continued)							
/ī/-y	ADF	BCEG					
/ī/-y...e					DG	A	BCEF
/ō/-o	BDEF	ACG					
/ō/-o...e	ADE	BCFG					
/ō/-oa	AD	CEG	BF				
/ō/-oe			ABF		D		CEG
/ō/-ou			D	C	G	AF	BE
/ō/-ow	A	CDEFG	B				
/ū/-u				A	FG	BD	CE
/ū/-u...e	B	D		F	ACEG		
/ū/-ew		D	ABF	G	C		E
/ū/-oo	D	ABCEG	F				
/ū/-ou			BD	AG	CEF		
/ū/-ue		D	ABFG			C	E
/ū/-ui		D		A	BCF		EG
/oi/-oi		D	BF	AEG			C
/oi/-oy	D		BF	AE			CG
/ou/-ou	D	ACEG	BF				
/ou/-ow	D	ACEG	BF				
Vowel-r							
/är/-ar		ADEG	BF				C
/er/-are		D	AF	BG			CE
/er/-air		AD	EFG				BC
/er/-ear			ADEFG				BC
/ėr/-er		ADEG	BF	C			
/ėr/-ir		ADEG	BF				C
/ėr/-ur		ADG	BF			E	C
/ėr/-or		G	BDF	AC			E
/ir/-ear		ADE	FG				BC
/ir/-eer		D		F		G	ABCE
/ir/-ere		D					ABCEFG
/ir/-ire				B			ACDEFG
/ôr/-or		ADEG	BF				C
/ôr/-ore		ADE		BG			CF
/ôr/-oar				A	D		BCEFG
/ôr/-our			D	A		B	CEFG
/ůr/-ure					E	B	ACDFG
Inflectional Suffixes							
-s	E	ABCEFG					
-es		ABEG	CDF				
-ed		ABEFG	CD				
-ing		ABCEG	DF				
-er		BCEG	ADF				
-or				AG	D	CEF	B
-est		B	DF	ACE			G
-en			B	A	F		CDEG

Skill	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Not Taught
Inflectional Suffixes (continued)							
possessive 's			ABD	EG		F	C
possessive s'				AEG			BCDF
Derivational Suffixes and Endings							
-able				D	AC	EFG	B
-age					ACDG	F	BE
-ain						G	ABCDEF
-al				ADG	CEF	B	
-ance				D	C	AFG	BE
-ant				D	C	AF	BEG
-ar				G	ADE	C	BF
-ary						F	ABCDEG
-ate						DF	ABCEG
-ence				D	C	AFG	BE
-ent				D	C	AF	BEG
-ern				A			BCDEFG
-ery					C		ABDEFG
-ful				ADF	BCE		G
-ible				D		F	ABCEG
-ic						CF	ABDEG
-ice						A	BCDEFG
-ion				ACDG	B	FG	
-ish				B	CF		ADEG
-ist					F		ABCDEG
-ity					C	AF	BDEG
-ive					D	AF	BCEG
-ize					A	C	BDEFG
-less				ADF	BE	C	G
-ly				ABCFG	E		D
-ment				D	F	ACEG	B
-ness				DF	B	ACE	G
-ous				D	C	AFG	BE
-teen				A		B	CDEFG
-ty						B	ACDEFG
-ure					CDG	BF	AE
-ward					F	C	ABDEG
-y		G	BD	A	CEF		
Endings							
el				DG	ACFF	B	
ll				AG	E		BCDF
le			AD	BFG	CE		
on			A			G	BCDEF
us						G	ABCDEF
Prefixes							
a-			ACDFG	B			E
ad-						F	ABCDEG

Skill	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Not Taught
Prefixes (continued)							
be-			AG			B	CDEF
con-					DG	F	ABCE
de-					DG	AF	BCE
dis-				DG	ACF	E	B
en-					D		ABCEFG
ex-				G	BD	F	ACE
in-					BDG	AEF	C
inter-						AF	BCDEG
mis-			C		B	AE	DFG
pre-				F	D	G	ABCE
pro-					DG	EF	ABC
re-				ABDFG	C		E
sub-						F	ABCDEG
trans-					B	A	CDEFG
un-			A	BDFG	C	E	
Affixation Processes							
e dropped		BCG	ADEF				
e/__C				B		F	ACDEG
y to i		C	DEF	AB	G		
y/__i			E	C	G	B	ADF
y/V__			E	F	G		ABCD
doubling-1 syl			ABCDEFG				
doubling-2 syl				E	C	ADG	BF
non-doub-1 syl			AB	DE	C		FG
non-doub-1 syl				E	C	D	ABFG
ie to y					F		ABCDEG
f(e) to ves				ABEFG	D		C
palatalization					C	B	ADEFG
t /sh/ /__i					E	ABCFG	D
s /zh/					C	AFG	BDE
t /ch/					G	B	ACDEF
d /j/						G	ABCDEF
assimilation						F	ABCDEG
Dictionary Skills							
alpha 1st ltr		ABDEG	CF				
alpha 2nd ltr		AD	BCEFG				
alpha 3rd ltr		AD	BCEFG				
alpha 4th ltr		D	FG				ABCE
guide words		A	BEFG	C			D
pronun symbols			AF	BDEG	C		
Homophones		CD	ABEFG				
Compound Words		AE	BCDFG				
Irreg. Words	BDEFG	AC					

Skill	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Not Taught
Contractions							
for be			ABCDEFG				
for have			CDF	AEG		B	
n't			ABCDEFG				
'll			CDEFG	A		B	
Abbreviations		ADE	BCFG				
Syllabication							
C1/C1			ADE	CFG	B		
C1/C2			ADE	CFG	B		
V/CV			DE	ACFG	B		
VC/V			D	ACEF			BG
Special Sets of Words							
days			CG	ADEF			B
holidays	D			AC			BEFG
months			C	ADEFG	B		
numbers	DG	E	C	B	F		A
Segments							
final VC	ABCEFG						D
final VCC	AF	C					BDEG
initial CV	C			BE			ADFG
VCe	C	F	E			B	ADG
Whole Words							
CVC (/CVC/)	ABG	CDF	E				
(C)CVC(C)	ABG	CDE					F
(C)VCe	AB	DEFG					C
two syllables	B	AEG	CDF				
Non-spelling							
handwriting	ABCDEFG						
composition	AC	DE		BF			G
reading	DF	E	B	C	A		
etymology			D	ABCE	F	G	
grammar	D	ABCEF					G
punctuation	D	A	B	E		CF	G
capitalization	BD	C	AE	F			G

APPENDIX C

SUGGESTED LEVELS FOR
ASSESSING SPELLING CONTENT

Grade	Consonants	Vowels	Affixes	Other
FIRST GRADE	/b/-b, /d/-d, /f/-f, /g/-g, /h/-h, /j/-j, /k/-c, /k/-k, /l/-l, /m/-m, /n/-n, /p/-p, /r/-r, /s/-s, /t/-t, /v/-v, /w/-w, /ks/-x, /y/-y, /z/-z.	Short: /a/-a, /e/-e, /i/-i, /o/-o, /u/-u.		
SECOND GRADE	/k/-ck, /l/-ll, /s/-ss, /ch/-ch, /ng/-ng, /sh/-sh, /th/-th, /hw/-wh. Clusters.	Short: /u̇/-oo. Long: /ā/-a...e, /ā/-ai, /ā/-ay, /ē/-e, /ē/-ea, /ē/-ee, /ī/-i...e, /ī/-y, /ō/-o, /ō/-o...e, /ō/-oa, /ō/-ow, /ū/-oo, /ou/-ou, /ou/-ow.	Suffixes: -s, -ed, -ing.	Dictionary skills: alphabetical order by first letter. Irregular words.
THIRD GRADE	/f/-ff, /s/-c, /s/-ce.	Short: /ə̂/-a, /ô/-aw, /u̇/-u. Long: /ĭ/-ie, /ĭ/-igh, /ū/-ue. Vowel-r: /är/-ar, /er/-air, /er/-ear, /ėr/-er, /ėr/-ir, /ėr/-ur, /ir/-ear, /ôr/-or.	Prefixes: a- Suffixes: -er, -es.	Dictionary skills: alphabetical order by second and third letters; guide words. Contractions for be, n't, 'll. Final e dropped. Doubling one-syllable words. Homophones. Compound words.
FOURTH GRADE	/j/-dge, /j/-ge, /kw/-qu, /m/-mb, /n/-kn, /r/-wr, /s/-s, /s/-se, /s/-ze, /ng/-n.	Short: /e/-ea, /ô/-augh, /ə̂/-ough, /u/-o...e. Long: /ē/-ie, /ĭ/-i, /ū/-ew, /oi/-oi, /oi/-oy. Vowel-r: /er/-are, /ėr/-or, /ôr/-ore.	Prefixes: un- Suffixes: -est, -ly, possessive 's.	Abbreviations. Contractions for have. Pronunciation symbols. Changing y to i. Changing f(e) to v(es).

Grade	Consonants	Vowels	Affixes	Other
FIFTH GRADE	/f/-ph, /j/-g. Miscellaneous silent consonants.	Short: /u/-o, /u/-ou, /o/-au. Long: /ū/-u...e, /ū/-ui, /ū/-ou. Vowel-r: /er/-ear.	Prefixes: dis-, re- Suffixes: -al, -ful, -ion, -less, -y. Endings: el, le.	Syllabication: C_1/C_1, C_1/C_2, V/CV, VC/V. Non-doubling: one-syllable words.
SIXTH GRADE	/k/-ch, /sh/-ch.	Short: schwa /ə/ Long: /ā/-a, /ā/-ei, /ā/-eigh, /ē/-e...e, /ō/-ou, /ū/-u.	Prefixes: in- Suffixes: -able, -age, -ance, -ar, -ence, -ment, -ness, -or, -ous, -ure.	Abbreviations. Irregular words. Doubling two-syllable words. Palatalization: t - /sh/.